

## USABILITY ISSUE OF SMALL SCREEN DISPLAYS FOR MOBILE LEARNING

Syahrul Nizam Junaini

*Faculty of Information Technology, Universiti Malaysia Sarawak (UNIMAS)*

*94300 Kota Samarahan, Sarawak, Malaysia*

*Tel: +6 082 671000 ext. 245 Fax +6 082 62301*

*E-mail: syahruln@fit.unimas.my*

### ABSTRACT

The quality of interaction among the user of Internet environments will determine their satisfaction while browsing for the information. In the near future more people will retrieve information from the Web using handheld, palm sized or smaller computers. The user interface and the interaction design should preserve the consistency without unnecessarily puzzling the user. This paper reports the usability issues related with small screen display. The discussion covers the major issue of usability on small screen displays in term of interaction design and general usability. The study tests a small screen application designs in term of usability. A task carried out by the user to test the application. This paper underscores the importance of usability to improve the interaction design. I also propose a general usability guideline for small screen display. The guidelines proposed should improve the interaction design thus improving student's ability to interact with the interface.

**Keyword:** Usability; Interaction and Navigation Design; Small Screen Device.

### 1 INTRODUCTION

The swiftly rising era of information technology has cleverly improved the way we access information. With immense amount of information through the Internet for instance, we are being offered with convenience access to electronic data retrieval. This includes learning through mobile device. Meanwhile the devices that can be operated in mobile are becoming popular and easily operated. Recent demands show that mobile learning will become very popular in a very near future. Waycott [1] says in her work on investigating the potential of mobile learning that mobile technologies can be a very useful tool to enhance the learning.

Meanwhile some of the devices widely used nowadays are personal digital assistants (PDAs) and Mobile Phones. Handheld computer for example PalmPilot is getting vast recognition in the marketplace. In the near future, students from primary schools to universities will be equipped with those mobile devices to support their learning.

If this situation, which is conducive, continues, more learning applications will be developed. Thus, it seems wise to take into consideration how usable those applications will be. This paper assesses the usability issue that should be taken into account when developing educational applications for mobile learning.

For quantitative reason usability study has been done. The test involves a version of a tourism information system application as a sample of educational system. The main objective of this study is to measure the effect of small screen display on task completion and secondly to find out how the ways users approach web-based information retrieval.